CLAIMS

1. A downhole tool comprising a body defining a bore and having a valve arrangement including a flow port in the wall of the body and a valve element biased towards a position to open the port, the valve element being initially releasably retained in a position to close the flow port.

2. The tool of claim 1, wherein the tool is a bypass sub.

3. The tool of claim 2, wherein the tool is a dump sub.

4. The tool of claim 1, 2 or 3, wherein the valve element is initially retained in the closed position by a retaining arrangement.

5. The tool of claim 4, wherein the retaining arrangement comprises a shear member.

6. The tool of claim 4 or 5, wherein the retaining arrangement comprises a retractable member.

7. The tool of any of the preceding claims, further comprising a valve element release arrangement.

8. The tool of claim 7, wherein the valve element release arrangement comprises a member adapted to be selectively located in the body.

9. The tool of claim 8, wherein the valve element release member is adapted to be dropped or pumped from surface to travel down through the string to land on the body.

10. The tool of claim 8 or 9, wherein the valve element release member is adapted to release the valve element by engaging the body.

11. The tool of claim 8, 9 or 10, wherein the valve element release member is configured to engage with and release a valve element retaining arrangement.

12. The tool of claim 8 or 9, wherein the valve element release member is adapted to permit application of a flow-induced force to a valve element retaining arrangement.

13. The tool of any of claims 7 to 12, wherein the valve element release member defines a flow restriction.

14. The tool of any of claims 7 to 13, wherein the valve element release member comprises a sleeve.

15. The tool of any of claims 7 to 14, wherein the valve element release member is adapted to land on the body above the flow port.

16. The tool of any of claims 7 to 14, wherein the valve element release member is adapted to land on the body below the flow port.

17. The tool of any of the preceding claims, further comprising a body bore restriction.

18. The tool of claim 17, wherein the restriction is a separate element selectively locatable in the body.

19. The tool of claim 18, wherein the restriction is adapted to be dropped or pumped from surface.

20. The tool of any of claims 17 to 19, wherein the restriction is adapted to close the bore.

21. The tool of any of claims 17 to 20, wherein the restriction is adapted to permit flow through the bore.

22. The tool of any of claims 17 to 21, wherein the restriction is adapted for location below the flow port.

23. The tool of any of claims 17 to 22, wherein the restriction is configurable to provide different degrees of flow restriction.

24. The tool of claim 23, wherein the restriction is selectively configurable to close the body bore and to permit flow through the bore.

25. The tool of claim 24, wherein the restriction is biased to assume the closed configuration.

26. The tool of claim 24 or 25, wherein the restriction is adapted to be moved to an open configuration by fluid pressure.

27. The tool of any of claims 17 to 26, wherein the restriction includes a fluid pressure actuated valve element.

28. The tool of claim 27, wherein the valve element is responsive to differential pressure thereacross.

29. The tool of any of claims 17 to 28, wherein the restriction is locatable in the body directly below the flow port.

30. The tool of any of claims 17 to 29, wherein the restriction further functions as a valve element release.

31. The tool of any of the preceding claims, further comprising a valve closing arrangement adapted for use in moving the valve element to close the flow port.

32. The tool of claim 31, wherein the valve closing arrangement is a separate element adapted to be selectively located in the body.

33. The tool of claim 32, wherein the valve closing arrangement is adapted to be dropped or pumped from surface.

34. The tool of any of claims 31 to 33, wherein the valve closing arrangement defines a flow restriction, whereby a flow-induced force may be applied to the valve member to close the flow port.

35. The tool of claim 34, wherein the flow restriction is fixed.

36. The tool of claim 34, wherein the flow restriction is variable.

37. The tool of claim 36, wherein the flow restriction is adapted to open as flow through the restriction increases.

38. The tool of any of claims 31 to 37, wherein the flow restriction is adapted for location above the flow port.

39. The tool of any of claims 31 to 38, wherein the valve closing arrangement is adapted to be selectively coupled to the valve element.

40. The tool of claim 39, wherein the valve closing arrangement is coupled to the valve element by a cam arrangement.

41. The tool of any of claims 31 to 40, wherein the valve closing arrangement further serves as a valve element release.

42. The tool of any of the preceding claims, further comprising an arrangement for locking the valve element in a position to close the flow port.

43. The tool of claim 42, wherein the locking arrangement is a separate element adapted to be dropped or pumped from surface to land on the body.

44. The tool of claim 42 or 43, wherein the locking arrangement comprises a sleeve.

45. The tool of any of the preceding claims, wherein the valve element comprises a sleeve.

46. The tool of any of the preceding claims, wherein the valve element is selectively coupled to the valve body.

47. The tool of claim 46, wherein the valve element is coupled to the valve body by a cam arrangement, to control the movement of the valve element relative to the body.

48. A method of providing bypass in a drill string, the method comprising:

providing a tool in a drill string, the tool comprising a body defining a bore and having a valve arrangement including a flow port in the wall of the body and a valve element biased towards a position to open the port;

retaining the valve element in a position to close the flow port; and then

releasing the valve element such that the valve element moves to open the flow port.

49. The method of claim 48, further comprising dropping or pumping a member from surface to land on the body and permit release of the valve element.

50. The method of claim 48 or 49, further comprising restricting the body bore.

51. The method of claim 50, comprising dropping or pumping a restriction from surface.

52. The method of claim 50 or 51, comprising closing the bore.

53. The method of claim 50, 51 or 52, comprising locating a restriction below the flow port.

54. The method of any of claims 50 to 53, comprising configuring the restriction to provide different degrees of flow restriction.

55. The method of claim 54, comprising configuring the restriction to close the body bore and configuring the restriction to permit flow through the bore.

56. The method of any of claims 48 to 55, comprising closing the body bore below the flow port and then directing fluid through the flow port.

57. The method of claims 56, wherein the fluid comprises LCM.

58. The method of any of claims 48 to 57, further comprising moving the valve element to close the flow port.

59. The method of claim 58, comprising applying a flow-induced force to the valve element to close the flow port.

60. The method of claim 59, comprising providing a flow restriction to co-operate with the valve element.

61. The method of claim 60, comprising dropping or pumping the flow restriction from surface.

62. The method of any of claims 48 to 61, further comprising locking the released valve element in a position to close the flow port.

63. The method of claim 62, comprising dropping or pumping a valve-locking element from surface.

64. A method of spotting LCM comprising:

providing a tool in a drill string, the tool comprising a body defining a bore and having a valve arrangement including a flow port in the wall of the body and a valve element biased towards a position to open the port;

retaining the valve element in a position to close the flow port; and then

releasing the valve element such that the valve element moves to open the flow port;

closing the body bore below the flow port; and

pumping LCM down through the string and into the annulus through the flow port.

65. A method of draining fluid from a drill string comprising:

providing a tool in a drill string, the tool comprising a body defining a bore and having a valve arrangement including a flow port in the wall of the body and a valve element biased towards a position to open the port;

retaining the valve element in a position to close the flow port;

releasing the valve element such that the valve element moves to open the flow port; and

retrieving the drill string while permitting fluid to drain from the string through the flow port.